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## Original Communications.

### A HISTORY OF FOUR CASES OF CEREBRO-SPINAL MENINGITIS WHICH OCCURRED IN PROVIDENCE, R. I., IN 1870.

By STEPHEN S. KENNEDY, M.D.

THESE four cases all occurred in a dwelling house occupied by one family, and situated in the lower part of the city. The house is seventy years old or more, is two stories high, and covers an area, with its out-buildings, of about fifteen hundred square feet. A steep hill of about  $22\frac{1}{2}$  degrees inclination rises towards the east, behind the house, and extends about three hundred feet before it meets any surface drainage. This extent is covered pretty thickly with trees and shrubs, and the soil is clay-loam lying upon hard-pan slate and granite. There is no under-drainage on this side hill.

The house fronts westward—frontage 50 feet—and this is the only side of the house that is freely open to sun light or ventilation. The cellar floor of the house is about ten feet above high-water mark. It has a drain beneath it communicating with the sewer; nevertheless the cellar is represented as having been always wet, the utmost care of the proprietor not sufficing to keep it dry. In front of the house, about six feet distant, and under the curb-stone, is a large opening into the street sewer. Formerly the premises were open freely to sun light and fresh air, but now they are encircled by brick walls, near and distant.

The first case occurred on the 14th of March. A woman, 22 years of age, domestic, who had been in Providence two years, and who had resided in the house six weeks, was seized with uncontrollable vomiting and diarrhoea and general febrile symptoms. She remained sick in the house for one week, and was then conveyed to the Rhode Island Hospital.

For some notes of her case I am indebted to the Hospital Records, from 20th March to 1st April, as follows:—March 20th. Vomiting and diarrhoea; tongue dry, with a yellowish-brown coat; skin dry and hot; pulse

108; some difficulty in breathing; pain in limbs; anaesthesia of hands and feet; some deafness, ears sensitive to sound; occasional delirium and spasms of masseter muscles; no eruption. Vomiting continued from time to time. Discharged, improved, April 1st.

The first of August, this woman made a visit to the hospital. She then complained of weakness, numbness and pricking in the hands and feet. This was five months after the first attack.

The second case was that of the lady of the house. She had slept on the same floor with the first case, and had been much with her during her illness. This lady was seized on the 6th April, three weeks after the commencement of the first case, and two weeks after that case had been removed to the hospital, with severe headache, nausea, chills, and fever, uncontrollable vomiting and purging; dyspnoea; pulse 125; pricking in hands and feet, followed by paralysis of all the extremities; loss of motion and sensation; mottles before the eyes. No paralysis of bladder. Mind intact. On the 1st of May it was considered wise to remove her from the locality. She was accordingly taken to private apartments in the Rhode Island Hospital.

I find noticed in the Hospital Record, 1st May, an eruption like chickenpox over the chest; pulse 120; no albumen in urine.

May 3d.—Pain in arms and legs; spasmodic movements of arms and legs; hyperaesthesia of lower extremities; sleeplessness; temperature  $99\frac{1}{2}$ ; pulse 104. Quinine, belladonna, nux vomica.

May 20th.—Desquamation of cuticle of face; spots on feet. These spots are described as resembling ecchymoses. Pain in limbs; sleeplessness. Morphine injected.

May 24th.—Dyspnoea; sleeplessness; tingling in feet, with coldness; pulse 112; temperature 100; no appetite.

Under a treatment mainly palliative and sustaining, gradual improvement is noted, until August 1st, when patient could feel electricity in both hands; could extend forearms and hands, the lower extremities remaining paralyzed.

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[WHOLE No. 2230.]

I saw this patient 1st of October; she had much improved in motion of hands and arms.

The third case was the house-keeper. She came under my charge, at the Rhode Island Hospital, on the 1st of July. From her I obtained a very clear account of her case. She is remarkably intelligent and observing. She had lived in the house for several years. Six weeks previous to the appearance of the disease, she returned from Nova Scotia, where she had remained two weeks, and had taken care of a sister, sick, as appears from careful questioning, of traumatic erysipelas and pneumonia only. She had nursed the first case here described, and, while nursing the second, on the 24th April, or three weeks after the commencement of this second case, having for several days previously experienced vertigo and general *malaise*, she herself was seized with chills and fever, pain in head, and uncontrollable vomiting. Diarrhoea followed, and continued for two days. Emesis ceased on the fourth day. On the 27th April, or on the third day of her attack, on awaking in the morning, the patient found the whole right side paralyzed completely, the left side incompletely, the extensors more than the flexors. At this period she experienced severe pains along the spine and limbs, with hyperæsthesia of right leg and foot and anesthesia of left foot and both hands. The pain was particularly severe in back of head and back of neck. The head was drawn backward convulsively, and there was slight opisthotonos on a few occasions. The muscles of the back of the neck were stiff. There was some difficulty in swallowing, but no stiffness of the muscles of the face. There was a sensation of heat in the feet, while they felt cold to the touch. There were crawling and pricking sensations, and numbness in the limbs. These last three phenomena were first felt in the right heel, afterwards in the left foot and in both hands. There were no convulsions, but slight convulsive movements of right arm and leg occasionally. There was headache, dizziness and sleeplessness, and sometimes stupor. The senses of taste and smell were gone. The eyes were sensitive to light; the patient was unable to read, and motes and sparks floated before the sight. The breathing was labored, sometimes painful. There was retention of urine and constipation. There was no eruption.

This patient was conveyed to the Rhode Island Hospital on the 1st of May. Ac-

cording to the Hospital Record, she continued to improve from first of May to first of July, suffering a good deal from pain in back and limbs, sleeplessness, nausea and hyperæsthesia. Quinine, nux vomica, belladonna, bromide of potassium, chloral, injections of morphine, ether and electricity were all tried.

I will now give the description of the actual state of this patient on the 1st of July (being the commencement of my term of service in the Rhode Island Hospital), copied from my hospital notes.

July 1st, 1870. Female, age 30; single; house-keeper; born in Nova Scotia; in Providence four years.

*Actual State.*—Countenance nearly natural; some expression of suffering. No emaciation. Mind clear, intact; intelligence remarkably good; gives a clear account of her case. Temperature, to touch normal throughout; in axillæ, 98 to 100. A few papules of lichen on feet; some herpes on face. Left extremities weak; nothing else abnormal on left side. Right side: Anesthesia throughout—of scalp, of face, neck, both sides of tongue, and of both right extremities. Hyperæsthesia of right limbs only, particularly of right leg and foot when pain in back is great. Movements of tongue and face uninterrupted. Some motion of hand and forearm. Slight movement of fingers—of flexion, not of extension; partial contraction of flexors of fingers and toes; forced movement of fingers painful. Right hand and foot have a sensation of heat, while they feel cool to the hand of the observer. Slight tumefaction of right hand and fingers. Pricking, formication and pains along right extremities. Right leg: Very slight power of extension of thigh; very slight movement of toes. Spasmodic movements of right arm and leg occasionally. Electro-sensibility and electro-contractility do not exist below right elbow and knee. Head: Pain in back part of head actually; in frontal region occasionally; no dizziness; sleep not good—two to four hours with anodyne. Sense of taste has never returned. Sense of smell increased. Ears less sensitive to sound; some deafness. Eyes not sensitive to light; no dilatation of pupils; can read a little; still sees motes and sparks. Spine: Great pain, with intermissions, along spine and extremities, particularly in lower extremities; some pain on pressure from summit to lumbar region, most remarkable along right side of spine. Patient complains of the sensation of a bar across the chest. Respiration is at times irregular and labor-

ed. Lungs and heart normal. Pulse 80, normal. Mouth and throat normal; swallowing uninterrupted. No relish for food; digestion medium. Constipation. Retention of urine; urine of normal quantity; contains some traces of epithelium and lithates; no albumen. Uterine functions normal.

*Diagnosis.*—The history of the case, its endemic character, two similar cases having already occurred in the same locality, followed by a fourth, the patient experiencing, at the commencement, vertigo, general *malaise*, chills and fever, pains in the head, severe pains in back of neck, with contraction of muscles of back of neck, opisthotonos, uncontrollable vomiting, intense pains along the spine, extending to lower extremities, with paralysis, hyperæsthesia and anaesthesia, spasmodic movements of extremities, paralysis of bladder, increased sensitiveness of sight and hearing, labored respiration, present a train of symptoms characteristic of what has been described as simple cerebro-spinal meningitis.

I found I had to deal with the sequelæ of cerebro-spinal meningitis, or that disease in its chronic form. I applied ice, cups and issues to the spine, ordered the utmost quiet and repose, disturbing the stomach as little as possible with remedies. I gave as much nourishment as the digestive organs would bear, and relieved pain and suffering by such means as art suggested. Injections of morphia, and electricity were most useful.

I kept daily notes of this case. The changes were few and the amendment slow. Nausea and vomiting occurred from time to time, and pain along the spine and extremities, bringing with it the spasmodic movements and hyperæsthesia of right arm and leg, and sleeplessness.

July 14th.—Patient turned on right side spontaneously for first time, rotated right forearm, and began to taste her food more.

By the first of August she had pronated right hand, adducted and abducted right foot, slept without anodyne, and had some appetite.

Aug. 14th.—Felt electricity along median nerve of right arm for first time; can supinate right hand perfectly; can pronate it less perfectly; considerable muscular power in flexor muscles of right arm. Slept well. Nothing else new.

According to notes, the pains returned from time to time, with convulsive movements of right arm and leg, with little or no nausea.

Sept. 7th.—Free from pain. Good night. No nausea. Good appetite; relishes her

food. Countenance natural. Patient thinks her state much improved. Pricking sensation in limbs; formication felt in right leg several days ago. Can flex right thigh a little, and move leg; can flex and extend right foot and toes slightly. More movement of right arm and hand; can pronate right hand and extend fingers. Anaesthesia of right arm, hand, leg and foot. Feels electricity in right elbow and wrist. Anaesthesia of right side of scalp, face and both sides of tongue. Ears less sensitive to sound; less deafness. Sight good; can read for a longer time; notes and sparks less frequent; pupils normal. No hyperæsthesia actually present; it returns with intense pain. Convulsive movements not so frequent. Breathing not affected. Heart and lungs normal. Pulse 80. The patient has had no bed-sores. No emaciation. Retention of urine and constipation still continue. Uterine functions normal. Nothing else remarkable.

There was occasional increase of pain, with its accompaniments, nausea, convulsive movements and hyperæsthesia of right limbs, until Sept. 18th, when patient had more motion of pronation and supination of right arm; flexed and extended right hand and fingers more easily, and grasped my hand with considerable force. Could flex the right thigh, adduct and abduct right foot, flex and extend right foot a little, felt hypodermic needle in right leg, and could stand on left leg.

To complete this history, I must mention the fourth case, that of the son, aged 12. He was taken on the 1st of May with vomiting, diarrhoea and fever; was sick three days, and recovered.

These were the only cases observed in Providence at that time or subsequently.

With regard to the cause, suspecting poison, careful chemical examination was made of the water and water-pipes, without result.

So far as I have been able to ascertain, this is the first time that cerebro-spinal meningitis has been observed in Providence.

The first and only record we have of its appearance in Rhode Island was in 1863, when it prevailed in the Naval School at Newport.

PROF. JOHN T. DARBY, of the University of South Carolina, recommends the liquid silicate of potash, in place of plaster of Paris, starch, &c., for immovable surgical dressings.

# IODIDE OF POTASSIUM IN BRONCHIAL ASTHMA.

By E. P. HURD, M.D., Newburyport, Mass.

IODIDE of Potassium in the treatment of Bronchial Asthma is a remedy which has been long used, and yet its importance has not, I think, been rated sufficiently high. It appears to me to be only useful in those chronic cases, distinguished by wheezing, dry râles, little or no expectoration, where the dyspnoea seems consequent on a congested and thickened condition of the air tubes. In one case, of this description, which has recently come under my observation, the relief was most marked, and the recovery rapid, by the use of Iodide of Potassium in ten gr. doses three times a day. The patient—a middle-aged man—had been confined to the house for a year, unable to do any work, much of the time debarred the *dorsal decubitus*, and becoming livid, emaciated and anasarctous. Lobelia, antimony, digitalis, prussic acid, the whole round of expectorants and counter-irritants had been tried without relief. The Iodide of Potassium "worked like a charm," removing the dyspnoea and anasarca, and restoring appetite and vigor; but after a month of comparative immunity from the disease, during which time my patient attempted resumption of his occupation, exposure to cold brought back the malady, with all its horrors. The Iodide now fails to give relief.

The commencement of this case seemed to promise excellent results; but now I find all remedies of ephemeral benefit. The case has certainly given me a hint not to report a cure until I am satisfied of its permanence.

## DEFECTS OF OCULAR REFRACTION, &c.

(Continued from page 166.)

### LECTURE II. PART I.—Prisms. Accommodation.

You will find in the recent works on ophthalmology that use is made of prisms in investigating and treating diseases of the eye. By a prism, is meant a wedge-shaped piece of glass, or a piece of glass bounded in part by two plane surfaces inclined to each other; the angle of the two surfaces being called the refracting angle of the prism.

We must therefore glance at the refraction of light by prisms. In the first place, they displace the image laterally, or in a direction towards the angle of the prism,

and give a colored appearance to the margins of the image. It will be remembered that the lateral deviation varies in amount with different positions of the prism. It is also to be mentioned that unless the prism is held in the position corresponding to the minimum deviation, a homo-centric incident pencil becomes astigmatic after refraction. The distance of the virtual image from the prism remains the same as that of the object for the position of minimum deviation, but not for all positions. Weak prisms, the only ones which can be used, should accordingly be placed nearly perpendicular to the direction of the object. Carter tells us, in the preface to his translation of "Scheffler's Theory of Ocular Defects," that "It is found in practice that the difficulties arising from aberration and dispersion become insuperable except by achromatic prisms when an angular measure of more than 8° is attained."

It follows that weak prisms, smaller than eight degrees refracting angle, should alone be used to remedy defects of direction. In this case, when the prism is weak, the angle of the lateral deviation of the image is about one-half the refracting angle of the prism; then we can only directly correct by a prism a deviation of four degrees.

If the optic axis deviates four degrees, the centre of the cornea will deviate along the edge of the lid about three-quarters of a millimetre. This is, then, the greatest deviation which can be directly corrected by a prism, that is, a little less than half a line, two millimetres being about equal to one line; but yet we must remember that if only a certain part of the deviation were corrected, the eye might thereby be incited to move so as itself to correct the rest.

The question as to the prism required might present itself as follows: conceive a straight line extending from the root of the nose directly forward in the median plane. What prism placed before the eye with the angle outwards is required to give to the ray from a point in this line at the distance  $m$  inches the direction as if it came from a farther point in the same line at the distance  $n$  inches? If  $l$  is the focal distance in inches of the convex lens which would bend rays from the distance  $m$  to directions as if from the distance  $n$ , then the refracting angle of the required prism expressed in degrees is approximately 135 divided by  $l$ .

This prism in combination with the lens whose focal distance is  $l$ , constitutes the orthoscopic glass of Scheffler.

Carter gives a table of the prisms required for orthoscopic combination with



the respective lenses. In copying the table, I have taken the nearest whole number in the case of the focal distance, and the nearest half-degree in the case of the prism. It may be seen that the value of the prism agrees very nearly with the formula, 135 divided by  $l$ .

Focal Length in Paris Inches.	Prism for Orthoscopic Combination.
89	$1\frac{1}{2}$ degrees.
44	3 "
30	$4\frac{1}{2}$ "
22	6 "
18	$7\frac{1}{2}$ "
15	9 "

In the last lecture, ocular refraction was looked upon as a case of geometrical optics. In the present, we have to consider it as a physiological process, and from this point of view I shall ask your attention to the distinction between refraction and accommodation, and to the relation of the refractive power to the mutual convergence of the optic axes, or to what is called *relative accommodation*. We shall then look in a general way at the action of glasses when used to assist vision, and at the theories according to which glasses might be selected, concluding the lecture with a word on the setting of glasses. With regard to the accommodation I desire to bring to your notice an extremely simple proposition, and yet one which will facilitate the further understanding of the subject: it is this, that the nearer to the eye the point from which the rays emanate, the more refractive action is required to bring them to a focus on the retina. It may also be noticed that the refractive action necessary to bring the rays from a given point to a focus on the retina may be divided into two parts: first, that which would suffice to give them directions as if they proceeded from some point farther off, and then that which would bring these last to a focus on the retina.

As we are able to see distinctly at different distances, the eye must be able to change its refractive power.

Suppose that when the refractive power of an eye is at its minimum, the eye is then optically adjusted for a certain point  $r$ , that is, the rays from this point come to a focus on the retina: this point  $r$  is the *far-point*; a point farther off is not seen distinctly.

The minimum of refractive power of a given eye corresponding to the far-point is called by Donders specially the *refraction* of the eye, and its amount may be indicated

in any particular case by the position of the far-point.

When the eye adjusts itself optically for a point nearer than its far-point, it must add to itself refractive power over what it has when adapted for its far-point. This addition of refractive power is called *accommodation*. When it has added all that it can, it is then optically adjusted or *accommodated* for its *near-point*. The whole amount it can thus add to itself is its total accommodation; this is the difference in refractive power between the eye when adapted for its far-point and the eye when adapted for its near-point.

This difference may be measured by an equivalent glass lens in the air, or represented by the position and extent of the line between the far-point and the near-point.

We might also measure it by the difference in refractive power of the crystalline lens in its two states of maximum and of minimum power, as the accommodation is brought about by a change in the convexity of the crystalline lens, which becomes more convex especially on its anterior surface during optical adjustment for near objects. This is shown by a study of the image formed by reflection from its anterior surface. This change is considered to be a consequence of the contraction of the ciliary muscle, known also as the tensor choroidæ.

We might also inquire what lens in the vitreous just behind the crystalline would produce on the rays the effect of the accommodation; or what lens in the aqueous just in front of the anterior surface of the crystalline would produce the same effect.

It should likewise be remembered that a given lens when placed in the vitreous, or in the aqueous, both of which have about the same index of refraction, nearly  $\frac{4}{3}$ , would not have the same focal distance as when placed in the air, and also that according as our auxiliary lens to produce the effect equivalent to that of the accommodation, is supposed before the eye, in the aqueous, or in the vitreous, it might be different just as the lens to bring parallel rays to a focus at a given point would be different according to its location.

We adopt in practice the first measure, equally applicable whether more or less of the accommodation is used. If we suppose just in front of the cornea a thin lens of focal distance  $A$  when in the air, and of such power as to give to rays from a given point directions as if they

came from the far-point, we evidently get an increment of refractive power equivalent to the accommodation required for the given point. The focal distance of such a lens is given by the formula

$$\frac{1}{A} = \frac{1}{p} + \frac{1}{r} \quad [4]$$

the distances  $p$  and  $r$  respectively of the given point and of the far-point being counted from the supposed auxiliary lens which is supposed close to the cornea. Donders counts the distances  $p$  and  $r$ , from the combined nodal points of the eye. As these are only about seven millimetres behind the cornea, only a slight difference in the value of  $\frac{1}{A}$  will result from this way of counting the distances.

This conception, however, of locating the supposed thin lens representing the accommodation in the nodal point of the eye is less simple, because the lens would not then be in the air as the use of the formula supposes. Donders proposes three ways of explaining this difficulty, which, indeed, render the conception allowable, though less simple than that of a thin lens supposed just in front of the cornea.

*Addend.*—After the word *system*, p. 248, 1st column, 14th line, add "or have directions as if proceeding from this point."

## Reports of Medical Societies.

### MEETING OF THE COUNCILLORS OF THE MASSACHUSETTS MEDICAL SOCIETY.

THE Councillors of the Massachusetts Medical Society held their stated meeting in Boston, on Wednesday, October 5th, 1870. The Vice President, Dr. Hunt, in the chair.

It was announced that Dr. Asa T. Newhall, of Lynn, had been expelled by a Board of Trial, for alleged criminal abortion.

Several recommendations of the Committee on Resignations were passed. Their recommendation that the name of Dr. J. A. Tilton, of Newburyport, who had failed to respond to the Treasurer, be dropped from the rolls of the Society, was accepted.

The Secretary read the vote of the Society, passed at the Annual Meeting, to strike out a paragraph of Art. I. of the By-Laws, relative to the admission of medical graduates of Harvard University without examination.

Prof. H. J. Bigelow, of Harvard University, said that the paragraph in question

had its origin in an old State Law, enacted for the benefit of the Society, not for that of the College; that the Medical Faculty of the University never had any interest in the matter, and he believed that some of them scarcely knew of its existence. This paragraph in the Society's By-Laws was understood to be rendered inoperative by the repeal of the State Law alluded to, and by the passing of the Act of 1859,\* which required all candidates for membership to be examined by the Censors. He would therefore move that the paragraph in question be stricken from the By-Laws of the Society.

Prof. Calvin Ellis, Dean of the Faculty, seconded the motion. Voted, *nem. con.*

The Committee appointed at the last meeting of the Councillors, to whom was referred the Report of the Delegates to the American Medical Association; the counter statements of Dr. John L. Sullivan, of Malden, and others; together with any other papers pertaining to the matter, made a report through their Chairman:—

I. That they found the statements in the Report referred to them substantially correct; that objections to the admission to the American Medical Association of the Delegates of the Massachusetts Medical Society were presented by Dr. H. R. Storer, and Dr. J. L. Sullivan, *without proper notice having been given by them of their intention to present said objections.*

II. That in their opinion, in view of the fact that Drs. Storer and Sullivan were members of the Society, their omission, apparently premeditated, to give such notice was, to say the least, an act of discourtesy which deserves censure.

III. The Committee further reported that the action of the American Medical Association, in effect imposing conditions upon the rights of this Society, was ill considered and unwarranted; and they advised, before again sending delegates, a committee be appointed to make a formal representation to the American Medical Association at its next Annual Meeting, with a view of procuring a reconsideration of its action in the premises.

IV. The Committee recommended that no Delegates from the Society be sent to the next Annual Meeting of the American Medical Association.

\* Act of the State passed March 5th, 1859, viz.:—"No person shall become a member of the Massachusetts Medical Society, except upon examination by the Censors of said Society; and any person of good moral character, found to possess the qualifications prescribed by the rules and regulations of said Society, shall be admitted a Fellow of said Society."—Chap. 82, Mass. Laws, 1859.

*Voted*, that these several sections be taken up separately.

A free discussion ensued, in the course of which Dr. Sullivan pleaded that there had been no intention of discourtesy, or to surprise the Society's delegates. Dr. Millet argued that the members making the protest were personally responsible, as shown by documents from the Secretary of the American Medical Association; Dr. Savory described the unusual procedure of these members at Washington; Dr. Chapin expressed grief and astonishment that any member should, especially in such a manner, accuse the Massachusetts Medical Society of favoring quackery in any shape, especially as it had done so much and was endeavoring to do so much to repress it; Dr. D. H. Storer defended the Society, emphatically asserting that it had, in its corporate capacity, as well as by its individual members also, himself included, at much sacrifice of labor and means, done everything possible to put down charlatanism of every sort; declaring further, that the Society had long ago shut its doors against admission of all irregulars; but there was no power under Heaven to restrain men to a prescribed practice when they had once been admitted.

Nos. I, II, and IV. of the Resolutions were then adopted by the Councillors without a negative vote; No. III. was adopted by a large majority—those opposed declaring their wish that no notice be taken of the Association, except by omitting to send delegates in future.

*Voted*, that the Committee on the Protest constitute a committee to represent the matter contained in Resolution III. to the American Medical Association.

The remainder of the Committee's report, containing a carefully prepared Digest of the Acts of the Legislature relating to the admission of members into the Massachusetts Medical Society, and other matters pertaining thereunto, was referred to the Committee on Publications, with power to print such portions thereof as they may think useful to the Society at large.

*Voted*, on motion of Dr. W. W. Comstock, of Middleborough, that the Committee on Publications be requested to see that no obituary notices be published in the Society's Communications which are not furnished by some responsible member of the Society.

Adjourned.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.  
CHARLES E. VAUGHAN, M.D., SECRETARY.

The semi-annual meeting was held at Waltham, October 12th.

In accordance with the expressed wish of the members, Dr. Willis reported the proceedings of the Councillors of the Massachusetts Medical Society at their recent meeting, including their action upon the difficulty at the late meeting of the American Medical Association at Washington.

The change in the rules for admission to the Massachusetts Medical Society was also reported.

Dr. C. E. Hosmer, of Waltham, read a paper upon hot-air furnaces, and other means of warming buildings. He thought that in heating, direct radiation is preferable to convection. If a room is warmed by air heated at a distant centre of heat, a higher temperature is required than is the case when the heat comes directly from a centre of radiation in the room. Increase of temperature implies increase of capacity for moisture, with the attendant evils. The transition of gases through heated cast-iron stoves was also mentioned as another serious evil connected with the hot-air furnace. The conclusion arrived at was, that the steam apparatus, with the radiators in the room to be heated, was the best available means of heating.

The paper elicited some discussion. Dr. Warren remarked that the absence of ventilation by the introduction of fresh air from without, is a serious objection to the direct-radiation form of steam apparatus. This is obviated by the form which carries air from without, over radiators in the basement. Hot water was spoken of as better than steam for heating, since it does not necessitate so high a temperature.

Dr. Stone, of Newton Corner, read a paper upon embolism and thrombosis, defining and describing the two at some length.

Drs. Willis and Hunt reported cases of embolism.

Dr. Cogswell reported a case of a man of 45, in whom the anterior fontanelle and the sagittal suture were open, so that the pulsations of the brain were felt. He was subject to severe headaches, which his wife treated successfully by approximating the edges of the parietal bones by strong manual pressure. When seen, the patient had just had an epileptic attack, but had never suffered from such attacks previously.

Dr. C. E. Hosmer mentioned an instance of tolerance of bromide of ammonium. The patient, an epileptic, through misunder-

standing of directions, took 160 grains daily for the space of seven months. There was no recurrence of the attacks during this time, until very unusual fatigue in the hay-field was followed by a single fit.

Dr. Sullivan re-introduced the subject of the recent action of the Councillors, and offered a motion protesting against the same as unauthorized. This was referred to a committee consisting of Drs. L. R. Stone, C. E. Vaughan and O. E. Hunt, to report at the annual meeting.

The Censors reported the admission of Drs. C. W. Marsters, C. B. Shute and W. W. Dow.

### Bibliographical Notices.

*Archives of Ophthalmology and Otology.* Vol. I. No. 2. New York: William Wood & Co. For sale by James Campbell, Boston.

The second number of this valuable work comes to us in the form of a handsome octavo of 256 pages, illustrated by numerous wood-cuts and four lithographic plates. The letter press is large and clear, the subject matter well selected, and of interest not only to special practitioners, but to the profession at large.

The simultaneous publication, in two languages, and in different continents, of a work devoted to the interests of two important branches of medical science, is no slight labor, and requires the expenditure of much time and energy for its successful accomplishment.

The contributions, as received by the editors in New York and Heidelberg, are exchanged and translated for the German and English editions. The lithographic plates are prepared at the establishment of C. F. Müller, in Carlsruhe, for both editions, and the transfers made as rapidly as possible. That neither time nor energy have been spared in the editorial and administrative department, is shown by the character of the present number.

The principal contributors are Prof. Knapp and Prof. Moos, the English and German editors respectively. Of the twenty-five papers composing the publication, ten are devoted to subjects connected with Otology. Fourteen of the articles are by American, and eleven by German writers.

We shall take an early opportunity to give this work a more extended notice.

C. J. B.

*Snuff-taking; its Utility in preventing Bronchitis, Consumption, &c.* By JOHN MURRAY, M.D., &c. London: John Churchill & Sons. 1870.

We are irresistibly induced, on reading the title of this volume, to quote the no less striking one of Mr. Parton, "Does it pay to Smoke?" and while we might join heartily in the arguments of Mr. Fiske, which induced him to write his rejoinder, "It does pay to Smoke," we cannot help rebelling against a prophylactic, so disagreeable to many sensitive persons as snuff-taking, to ward off diseases of the pulmonary organs. The fragrant odor of the burning weed we can well appreciate, *after office hours*, but we feel disposed to reluct at the use of tobacco in the form of snuff, even with the promised boon of freedom from bronchitis and consumption.

However, speaking seriously, the somewhat amusing and exhaustive paper of Dr. Murray, read before the British Medical Association, deserves notice for the suggestion which it makes to the profession. One of our brethren in Boston ascribes his freedom from a catarrhal trouble, which he had for years, to his recent habit of exhaling the smoke of his cigar by the nasal passages; and why may not the proposition of Dr. Murray have a similar truth concealed in it? We cannot give our readers any results from an employment of this method of medication by the nasal passages, but we should be glad to see the suggestion tried.

*A Handbook of Medical Microscopy.* By JOSEPH G. RICHARDSON, M.D., Microscopist to the Pennsylvania Hospital, &c. Philadelphia: J. B. Lippincott & Co. 1871. Pp. 333.

This book owes its origin to a belief entertained by the author that there exist in the profession an increasing sense of the importance of microscopic research and a growing desire to render its advantages available in the routine of daily practice. It is a thoroughly practical handbook, well and wisely written, and, after a careful examination, appears to be a good work to put into the hands of students and practitioners, in place of the more expensive foreign books.

The first two chapters are devoted to instruments and manipulation. He describes most of the American microscopes, alluding especially, and with the most praise, to the Woodward microscope, Grunow's, Tolles's and Dentmayer's. In the matter

of manipulation, we do not remember having seen the formula of "Hunt's cement," as it is called, which is extensively used for sealing the edges of the thin glass in the Army Medical Museum, and therefore we introduce it. Dr. Woodward states that it is prepared by evaporating Canada Balsam to a solid consistence, dissolving it in an equal bulk of benzole, and then thickening it to about the density of cream, with white lead or zinc, ground in oil.

The larger part of the book is devoted to the examination of the secretions and excretions of the body, in health and in disease, the method of searching for parasitic organisms of the integuments and the muscles, medico-legal investigations, and the examinations of morbid growths. It is arranged very thoroughly upon a sort of natural system, and, as far as practicable, in accordance with the so-called dichotomous plan, having therefore the great advantage of presenting problems of diagnosis as they occur in actual practice. By this method, while different secretions and excretions form a basis of classification, classes are divided, according to the naked-eye characteristics, into orders, after which the microscopic appearances point out the generic and specific peculiarities that serve to distinguish the special malady existing, and so conduce to those great ends of microscopic study, the more accurate diagnosis, prognosis, and treatment of disease; in fact, the carefully drawn deductions which, throughout the book, Dr. Richardson draws from the appearances seen, and the advice given under supposed circumstances, give a charm and value to the perusal of it. We mention especially his chapter on the examination of pus and mucus, of the blood, of the sputum, &c., all of which are strictly in accordance with modern theories, and are safe and reliable authorities. An excellent index closes the book.

*Hypertrophy of the Muscular Walls of the Minute Arteries in Cases of Bright's Disease.\** By GEO. JOHNSON, M.D., F.R.C.P., President of the Metropolitan Counties Branch of the British Medical Association.

In a small pamphlet of seven pages the author briefly states his views on the causes and consequences of this species of hypertrophy. The following is an abstract.

The walls of the larger arteries are mainly

composed of yellow elastic tissue, which serves to receive, transmit and equalize the cardiac impulse. The walls of the minute arteries bordering on the capillaries, on the contrary, are composed principally of muscular fibres, transverse and longitudinal, and, subject to the intelligence of the vaso-motor nerves acting in behalf of the parts to be supplied, serve, like stop-cocks, to govern the flow of blood to the various organs and tissues.

"In consequence of degeneration of the kidney, the blood is morbidly changed. \* \*

\* \* It is, therefore, more or less unsuited to nourish the tissues—more or less noxious to them. The minute arteries throughout the body resist the passage of this abnormal blood. The left ventricle, therefore, makes an increased effort to drive on this blood. The result of this antagonism of forces is, that the muscular walls of the arteries, and those of the left ventricle of the heart, become simultaneously and in an equal degree hypertrophied. The persistent overaction of the muscular tissue, both cardiac and arterial, is found registered after death in a conspicuous and unmistakable hypertrophy."

"We have found this hypertrophy of the minute arteries in various tissues (kidney, pia mater, skin, intestines, muscles, and probably elsewhere) associated with hypertrophy of the left ventricle in every case that we have examined, amounting now to more than a dozen."

Dr. Johnson mentions, in conclusion, some of the phenomena of chronic Bright's disease, which, he says, are explained by the facts to which he has referred.

"1. The hypertrophy of the left ventricle is explained. That which Dr. Bright long ago surmised is now a demonstrated fact. There is an impediment to the passage of the altered blood 'through the distant subdivisions of the vascular system'; hence arise greater action of the heart, and hypertrophy of its walls.

"2. The full, hard, radial pulse, and the increased pressure on the arterial walls indicated by the sphygmograph, are explained by the co-existence of excessive cardiac force, with an equal, or more than equal, excess of arterial resistance.

"3. The excessive dryness of the skin, and the difficulty of exciting diaphoresis, even by the hot-air bath, are accounted for by overaction of the hypertrophied subcutaneous arteries resisting the relaxing effect of external warmth, which has so powerful an influence upon the healthy skin.

"4. One result of excessive resistance

\* Read at an ordinary meeting of the Metropolitan Counties Branch of the British Medical Association, March 30th, 1870.

throughout the whole systemic arterial system must be to impede the passage of blood from the venous system through the lungs, and thus to favor the occurrence of dropsy by an influence not unlike that of a defective valve on the left side of the heart. The influence of arterial resistance in retarding the circulation will mainly depend upon the extent to which this is counteracted by hypertrophy of the left ventricle of the heart.

"5. Lastly, the not infrequent occurrence of cerebral hæmorrhage is explained. While the minute cerebral arteries resist the passage of the blood, the strong left ventricle is forcibly driving it onwards. In the struggle between the two contending forces an artery gives way, and the result is cerebral hæmorrhage and apoplexy."

C. W. S.

*The American Dispensatory.* By JOHN KING, M.D., Professor of Obstetrics and Diseases of Women and Children in the Eclectic Medical Institute of Cincinnati, &c. &c. Eighth Edition, completely revised and largely re-written. Cincinnati: Wiltach, Baldwin & Co.

We have received from the publishers the large and compendious work of Dr. King; it is, in fact, the Dispensatory used by the so-called Eclectic school of practitioners, and undoubtedly contains very much which will be of use to them. To say that there are very many things in the work we cannot believe, would be as true as the assertion which we freely make that we have no faith or reliance in the school which it represents; but that it contains very much which is really of value, especially in the department of botanical therapeutics, is a fact of which we are assured. To those regular practitioners who employ many of the alkaloids it is of value, inasmuch as they are quite fully treated therein.

We let the publishers speak for themselves in their description of the work:—

"Although many valuable Dispensatories have been presented to the physicians and pharmacutists of this country and Europe, they have all, except the former editions of this work, been confined to an account of those remedies only which have been recognized and employed by that class of physicians termed 'Old School' or 'Allopathic;' ignoring all the recent discoveries and improvements of Medical Reformers, and have, therefore, only partially answered the purposes of the large number of progressive medical men found in these

countries. In the present Dispensatory, not only are the known medicinal plants described, as well as their numerous pharmaceutical compounds, alkalies, resinoids, oleo-resins, &c., but likewise all those poisonous mineral agents so strongly objected to by the New School physicians; thus forming a volume full and complete in itself. There is no other work, in Europe or America, containing such completeness of information. To render the work practically useful to the physician and pharmacist, and to bring it up to the discoveries and improvements in medical science of the present day, neither pains nor expense have been spared."

*The Medical Herbarium; a Collection of Dried Samples of Medicinal Plants.* By T. F. ALLEN, M.D. New York. Part I.

We have received the first part of the above work. It contains ten specimens, viz., Eupatorium Purpureum, Asclepias Incarnata, Polygala Senega, Baptisia Tinctoria, Aletris Farinosa, Ptelea Trifoliata, Phytolacca Decandra, Lobelia Inflata, Ustilago Maydis, and Cicuta Maculata. The specimens are neatly pressed, mounted on white paper, and protected by corrosive sublimate. A printed label, attached to each plate, gives the botanical and common name of each specimen and a few of its botanical characteristics. Ten parts are to be issued, which, if completed, will make a collection of one hundred specimens. The physician, pharmacist or lecturer will doubtless find many specimens in this collection which he would be glad to include in his museum; yet if only one hundred specimens are to be collected, we should not ourselves include in so limited a collection plants like ptelea trifoliata, or the ustilago maydis, which is generally known by the homelier name of corn smut.

E. H. C.

CHLOROFORM TO DETECT FEIGNED INSANITY. —A German medical journal mentions a case which happened in New York, and which we do not remember to have seen published at home. A man who had committed several murders and who appeared to be insane, was put under the influence of chloroform. As he began to revive, he answered questions with truth and reason. As soon as complete consciousness was restored, he saw that he betrayed himself, and made a full confession.—*Pacific Med. and Surg. Journal.*



# Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 27, 1870.

## REGENERATION OF BONE AFTER SUB-PERIOSTEAL RESECTION OF JOINTS.

M. OLLIER, who presented the following cases to the Academy of Sciences not long since, is the author of a valuable and exhaustive work on resection of bones, with special reference to the sub-periosteal operation. He justly concludes that these post-mortem observations are confirmatory of the eligibility of his method of operating, and of his experimental deductions.

"The two patients whose autopsy permitted me to verify these propositions died, one eighteen months, and the other a year, after resection of the elbow; the first was nineteen years old, and the second forty-nine. In the younger subject, the reproduction of the bone about the joint was very complete and regular; not only was the articulation restored by the approximation of the bony surfaces, but there was also restitution of the processes—the condyles of the humerus and the olecranon.

"Eight months after the operation, the patient was in good condition, both locally and in general. There remained only a small, fistulous opening, which occasionally gave exit to a little serous discharge. The movements of extension and flexion, of pronation and supination, were re-established, and were daily becoming more perfect. Phthisis manifested itself, unfortunately, and from that time to the end of his life, the patient suffered greatly. The hip-joint and the shoulder, up to that period perfectly well, were attacked with fungous tumors, and became carious; the elbow, which had been resected, underwent similar changes, and suppurated till the end of life.

"At the autopsy, the inferior extremity of the humerus was the part most regularly restored; viewed on its anterior aspect, it presented a triangular outline, its apex corresponding with the diaphysis of the bone, and its angles terminating in prominent projections, representing the epi-

condyle and epitrochlea; the base corresponded with the articular interline. A careful section of the bone demonstrated the repair of the condyles. Although the new portion appeared at first glance perfectly homogeneous with the original part, it could be distinguished by its roughened aspect, and by the absence of the smooth, compact tissue which covers normal bones.

"The ulna terminated in an olecranon of new growth, which formed with the original bone an obtuse angle, opening anteriorly in such a manner that the boundaries between the old part and the new were easily made out. This olecranon thus formed a sort of hook which, placed behind and between the new tuberosities, locked into the humerus and insured firmness in the joint.

"Just within the point of articulation of the olecranon and the posterior aspect of the humerus was found, on the new internal condyle, a well defined depression lodging the ulnar nerve in its normal position. The radius terminated in an enlargement formed of new bone, but without the cup-shaped depression.

"All these new growths were covered by a thick periosteum. The different muscular insertions, which had been detached at the time of the operation, were restored in their normal relations. The muscles themselves were pale and atrophied on account of long disuse. Between the two condyles of the humerus was a tough, fibrous mass, covered anteriorly by fat. The articular surfaces were not yet enclosed in their cartilages. The return of suppuration in the elbow had not only prevented the completion of the reparatory processes, but had occasioned the various changes which belong to chronic inflammation of the joints.

"The second patient had died of albuminuria, a year after the operation. In spite of the unfavorable conditions under which he lived, his health having been satisfactory only from the second to the sixth month after the resection, I found at the side of the humerus two projecting, thickened growths of bone, one directed inwards and downwards, and the other outwards and downwards, so as to form a sort of socket, preventing all lateral motion of the

ulna and radius. The ulnar nerve was imbedded in an osteo-fibrous depression behind the internal condyle. The olecranon, of irregular shape, gave attachment to the tendon of the triceps muscle by a series of detached bony nuclei.

"The reproduction of the large condyles appeared in this case especially interesting, on account of the age of the patient, previous investigations having tended to prove that complete repair is not to be expected in the adult.

"All the muscular insertions which had been detached in the operation were found reestablished in their normal relations on the new growth of bone, as in the first instance.

"These results are confirmatory of the utility of the operation which aims at the entire preservation of the periosteal-capsular sheath of the joint, including all the fibrous tissues, the periosteum, tendons, and ligaments which cover the ends of the bones, and limit the articulation. The periosteum serves directly in the repair of the extremities of the bones, and, in cases in which this restoration is imperfect on account of the age of the patient, the preservation of the media of union and of the power of motion still furnishes a useful joint, the muscles continuing to act on their respective bones through the intervention of the periosteum."

#### A STUDENTS' NUMBER.

We call attention once more to the fact that our next number of the Journal will be devoted entirely to the Medical Class, and will contain, in addition to the address of Dr. J. C. White at the opening of the Winter Course of Lectures, sound advice from other members of the profession, and such items of information as may be useful to students, as well as practitioners, for the ensuing winter. We hope to make it both interesting and useful.

From the report of the annual meeting of the British Medical Association, in the Journal of that organization for Oct. 1st, we copy the following:—

ON STRANGULATION OF THE UTERUS. By GRAYLY HEWITT, M.D.—"Strangulation of

the uterus" is that condition of the organ in which the circulation is mechanically and forcibly interfered with, the result being acute congestion of the body of the uterus and various secondary effects. This strangulation is present when the uterus is forcibly bent upon itself, most markedly when it is bent backwards. It is a marked feature in most cases of flexion; and it is acute or chronic according to circumstances. It occurs as a necessary result of acute flexion, the arteries, but more particularly the veins, being partially occluded by the bending of the uterus. The acute pain and tenderness of the body of the uterus in such cases are due to it. The nerves are also pressed upon at the seat of flexion. It was the opinion of the author that this strangulation of the uterus is a principal pathological element in all cases where hysterical convulsive attacks are observed: the acute congestion of the uterus determining directly, as well as indirectly, the occurrence of the convulsive seizures. Strangulation of the uterus and chronic inflammation of the uterus are intimately related and mutually coöperative in giving rise to the various sufferings present in many cases of uterine disease.

DR. HUGHES BENNETT ON ANÆSTHESIA.—Dr. Hughes Bennett, at the meeting of the British Medical Association, stated that "he had always considered that anæsthesia was due to the pressure on the brain caused by an alteration in the circulation—for instance, congestion of the capillaries. No doubt it was by the same kind of mechanism that sleep was produced. The regular or irregular action producing sleep was a kind of congestion in the brain. Dr. Richardson gave the preference to bichloride of methylene, of which there was not yet much general experience. It was asserted by the American surgeons that there had never been a death caused by sulphuric ether; but how far that was correct he did not know. Dr. Richardson had stated the proportion of deaths from chloroform to be 1 in 2,500. But there were many deaths from chloroform that were never published. As was well stated in the paper, death from chloroform was one of the most dreadful things that could occur. He (Dr. Bennett) knew of one very sad case that happened in Edinburgh. A young and beautiful lady, daughter of a barrister, in perfect health, went to a dentist's house one morning and had a tooth extracted. Five minutes afterwards she was dead. This was only one

of many similar cases that had occurred, but had never been published. If a safe—positively safe—anæsthetic were to be discovered, which, though perhaps not so agreeable, would have the great advantage of safety, he thought that a very great blessing would have been obtained. The question was, Did sulphuric ether or bichloride of methylene give that safety?—*British Med. Journal.*

PARACENTESIS IN SYNOVITIS OF THE KNEE-JOINT. By J. FAYRER, M.D., C.S.L., &c.—In the *Indian Medical Gazette* of June 1, 1869, I published some cases of synovitis of the knee-joint treated by this method with satisfactory results. By these it was shown that with care in excluding air, carefully closing the puncture, and securing rest for the joint after the operation, not only may speedy relief be obtained, but with little danger of exciting fresh inflammation, even when the disease is of a sub-acute character.

The following case confirms this, and shows that the removal of the fluid may have satisfactory results, and that the relief obtained may be permanent. I believe that in the most acute cases it might be practised with advantage and great relief, though in so important a joint as that of the knee the risk would be considerable.

D. K., aged 24, a Bengali peasant, was admitted January 30, 1870, with the right knee-joint distended with fluid, the result of chronic synovitis, which he traces to an attack of gonorrhœal rheumatism, three and a half years ago. He appeared to have had an abscess on the inner side of the thigh, just above the knee-joint, for there was an open sinus which burrowed under the integuments. The limb was flexed and painful, and so weak that he was unable to walk. The fluid was drawn off through a delicate canula, the joint having been punctured on the inner aspect on May 31. About six ounces of straw-colored fluid were evacuated with immediate relief, and the puncture was hermetically sealed with gutta percha dissolved in chloroform. Before introducing the trocar and canula the integument was drawn aside to make the opening valvular. Not the least constitutional disturbance followed. He had no inconvenience beyond slight pain for a day or two. There was no return of the swelling; the fluid was not again secreted. After the puncture had healed, simple strapping was applied, and potas. iodid. was

given internally. He has gradually improved since; the thickening of the tissues is subsiding, and he walks with ease and can flex and extend the joint without pain.

There could be no doubt of the benefit in this case. He came into Hospital on January 30, and was under treatment for four months without receiving any material benefit until May 31, when the joint was tapped. He is now, July 30, quite well. The swelling and hydrops articuli have disappeared, and the weakened limb is rapidly regaining strength with exercise.—*London Medical Times and Gazette.*

FORM OF NEURALGIA OF THE JAW BONES, HITHERTO UNDESCRIBED.—Prof. S. D. Gross, Philadelphia (*Am. Jour. Med. Sciences*), describes a form of neuralgia of the jaw bones, which, so far as his information extends, has not hitherto been described. Its seat is in the remnants of the alveolar process of edentulous persons, or in the alveolar structure, and in the overlying gum, and is met with chiefly, if not exclusively, in elderly subjects. It is also more common in the upper than in the lower jaw. The part affected is usually very small, often not exceeding a few lines in extent. The soft tissues around do not seem to suffer, at least not in the same degree, as is so frequently the case in the more ordinary forms of neuralgia of the jaws and face. On the contrary, the morbid action is generally limited to the osseous structure. In rare instances there may possibly be some involvement of the gum, which is nearly always exceedingly hard and dense, grating more or less under the knife, and adhering with extraordinary firmness to the atrophied alveolar process underneath.

The pain is generally paroxysmal, coming on in fits and starts, very much as in ordinary neuralgia, the slightest causes being sufficient to provoke it. Pressure generally relieves rather than aggravates it.

The pathology of the affection seems to be compression of the minute nerves distributed through the wasted alveolar process, dependent upon the encroachment of osseous matter upon the walls of the canals in which they are naturally inclosed. In the natural state the nervous current passes along without any hindrance, but in this condition of the canals in question its transmission is interrupted, and more or less pain, known as neuralgic, is the consequence.

The disease usually comes on gradually,

and proceeds from bad to worse, until, in many cases, the suffering is rendered nearly intolerable.

Prof. Gross adds five cases of this affection, with their treatment, and believes that the only effectual remedy is excision of the affected alveolar process. No particular attention need be bestowed upon the after-treatment. A mild course of chalybeate tonics may be required when the patient is anæmic, or affected with flatulence and indigestion. He also exhibits a pair of forceps made for the removal of the alveolar process.—*N. Y. Med. Record.*

#### HEMORRHAGE FROM THE UMBILICAL CORD.—

Dr. George Pepper related the history of a case of hemorrhage from the free extremity of the umbilical cord. The child was a very fine, large male, eleven and one-quarter pounds in weight. The cord was cut, stripped up, and tied in the ordinary way with two ligatures. The child was then carefully wrapped up, and placed on the floor. After about half an hour, Dr. Pepper's attention having been given to the woman, he noticed that blood was escaping from the blanket in which the child was wrapped. The covering was removed, and everything around the child was found saturated with blood, which was still escaping from the cut extremity of the cord. The ligatures were removed and reapplied very firmly; the child was considerably depressed, but soon rallied. After about five hours he was again summoned, and on reaching the house found that hemorrhage had taken place from the free extremity of the cord; the amount, however, was not very great; the ligatures were again removed and reapplied; four or five hours later hemorrhage set in for the third time; on this occasion additional ligatures were thrown around the cord, and the dressing filled with tannic acid; no further bleeding took place. The child subsequently did very well, the cord falling off normally about the sixth day.

Dr. Goodell remarked that Dr. Pepper's case was to him unique, for in his own practice a third ligature had never been necessary, although a second one had sometimes been required, until he had adopted the following modification of Dr. A. F. A. King's method for the management of the cord:—So soon as the child cried lustily, or freely respired, he cut the still pulsating cord of the usual length, and after grasping it firmly at the umbilicus with the thumb and index finger of the left hand, to prevent it from being torn out, proceeded to "strip"

it with the thumb and forefinger of the right hand, in order to squeeze out of it all the blood and as much as possible of the gelatin of Wharton. If the cord were lobulated with blisters of this gelatin, each one was nicked with the scissors and emptied. The compression at the umbilicus was now for a little while dispensed with, in order to allow the internal portion of the vessels to collapse, and then a second instalment of "stripping" was resorted to. When all hemorrhage had ceased—which was invariably the case after this manipulation—and the cord had become perfectly flaccid, it was tied in the usual manner. But neither binder nor greased or scorched rag, nor a dressing of any kind whatever was afterwards used, the cord being left to dangle about freely. He—Dr. Goodell—claimed for this method, that the cord dried up without any bad smell, or process of putrefaction, and fell off like a ripe fruit without leaving a raw stump. He stated that formerly two astringent lotions of tannin and zinc were kept at the Preston Retreat, which were in constant demand for the sore navels; but that, since adopting this new method, out of more than two hundred infants not a single one had had a pouting, angry-looking or purulent umbilicus; nor had any one suffered from fungoid vegetations or umbilical hernia. That, since anatomists had pointed out the existence of muscular fibre in the cord, he believed its ligation to be unnecessary; for if hemorrhage did not take place immediately after cutting and "stripping" it, it was very unlikely to occur at a later period. That he had once successfully dispensed with the ligature, but had suffered so much anxiety of mind lest a regurgitation of blood should occur during his absence, that he had ever since invariably applied it, although he was ashamed of this cowardice, and considered it the result of early prejudice. That the fact of a second, and even third ligature being occasionally required to arrest subsequent hemorrhage—as in Dr. Pepper's typical case—so far from being an argument in favor of ligation, was to him rather an argument against its use. For, if the cord were tied before being thoroughly emptied, and allowed to collapse, the blood imprisoned in it by the knot, being out of the circulation, would not only keep the vessels patulous, but would also necessarily undergo a process of putrefaction.

Dr. Duer stated that he had been induced by Dr. Goodell to try this method in a case occurring in his own private practice which they saw together, and so gratified was he

with the result that he was now introducing it in the lying-in wards of the Philadelphia Hospital.—*The American Journal of Obstetrics*.

**HYGIENIC TREATMENT OF DISEASE.**—"Side by side with the use of medicine, and not second to it, is the so-called hygienic treatment of disease—the study and regulation of the vital forces. The influence that the physician exercises over the mind, and through the mind over the body; the soothing or the stimulation of the nervous power; the calming of exaltation or the stirring up of apathy; the quieting of the over-busy brain or the spurring of the flagging will; the repose of over-used powers or the awakening of suspended vital functions; the subduing of the over-sensitive skin or the stimulating of it where wan, muddy, and lifeless; the limiting of supplies to the over-fed frame or the repair of the wasted body by the proper kinds of food and stimulants; the bringing into play, and so again into existence, muscle that had become wasted and paralyzed by disease; these are among the aims the physician seeks to accomplish, and these are among the means which he seeks to employ irrespectively, but by no means necessarily, without the use of medicine: these are among the agencies which you hold in your power in the treatment of disease, and that you, each of you, exercise daily in coping with the various forms of malady, of ailment, and of constitution." (Extract from the Address in Medicine, by Dr. Francis Gibson, at the last meeting of the British Medical Association).—*Lancet*.

**ON THE DIFFERENCE BETWEEN A HAND AND A FOOT.** By C. TICHBORNE, F.C.S., M.R.I.A.—Dr. Haughton, in a fourth communication upon animal mechanics, considers this subject in connection with the flexor tendons. "The fore feet of vertebrate animals," says the author, "are often used merely as organs of locomotion like the hind feet, and in the higher mammals they are more or less cephalized or appropriated to the use of the brain. The proper use of the hand is to grasp, that of the foot to propel by the intervention of the ground." In a hand proper the strength of each portion of a tendon is proportioned to the force it is required to transmit, and we should, therefore, expect the strength of the tendon above the wrist to be greater than the united strength of the finger-tendons. Con-

versely, in a foot, we should expect the united strengths of the flexor tendons of the toes to exceed the strength of the flexor tendons above the heel. The author gives the result of his investigations in connection with some thirty-six animals. All the animals realized the typical idea of a true foot with a variable amount of friction at the ankle-joint, this friction disappearing altogether in the Boomer Kangaroo, whose method of progression realizes absolute mechanical perfection, as no force is consumed by the friction of the flexor tendons at the heel. The only animals whose feet deviate from the typical foot were three—viz., the alligator, porcupine, and phalanger; in these the foot has the mechanical action of a hand, and the flexor tendons above the ankles exceed those below.

Dr. Haughton operates in the following manner: He measures the relative strengths of the deep flexor tendons of the hand above and below the wrist, and the relative strengths of the long flexor tendons of the foot above and below the ankle in the following manner: He weighed certain lengths of the tendons above the wrist and ankle, and compared their weights with the weights of equal lengths of the flexor tendons of the fingers or toes, assuming that the weights of equal lengths are proportional to their cross sections, and then again proportional to the strengths of the tendons at the place of sections. The difference between the weights above and below the joint represents the sum of all the frictions experienced by the two tendons between the points of section.—*Dublin Med. Press and Circular*.

**THE MEDICAL MEN OF STRASBOURG DURING THE LATE SIEGE.**—Strasbourg has been the scene of many a noble deed, and we rejoice to know that her renowned Faculty of Medicine has been equal to the occasion. The exertions of both professors and students have been worthy of the brave defence, and to those exertions was, no doubt, due the absence of many additional miseries. The awful trial has been passed through with much less sickness than might have been anticipated. Sick and wounded appear to have been thoroughly attended to and well cared for. We remember, naturally, that the Strasbourg Faculty was one of the most renowned in Europe. Alas! that it should have been tried to such an extent. All honor to it that when tried so severely it was not found wanting.—*Ibid*.

## Medical Miscellany.

**THE BABY FARMERS.**—At the trial of the (so-called) Baby Farmers in England, the evidence proved that the infants who were in charge of one of the prisoners had been treated with narcotics, and insufficiently supplied with food. A verdict of guilty was rendered against her, and she was sentenced to death. The second prisoner, who had been found guilty of obtaining money by false pretences, was sentenced to eighteen months' imprisonment.

**DR. N. G. ORDWAY**, of Portland, Maine, who was sued for malpractice in the matter of an operation performed upon a patient's hand, has received a verdict in his favor on the singular defence, as reported by a local paper, "that the ether used in the operation affected the physician so that he was unconscious of what he did."—*Med. Gazette*.

**CASE OF MULTIPLE CALCULI.**—M. Bron related to the Lyons Medical Society an account of a case which came under his care in which 723 calculi were removed from the bladder by the *lithotriteur à cuiller* with temporary relief. Two or three remaining in the bladder, however, formed the nucleus of a single stone which was successfully removed by lithotomy, the patient being 82 years of age.—*Lyons Med.*

**MAN versus ANIMAL.**—"Notwithstanding the mischievous outcry which has been lately raised against the use of humanized lymph for vaccination, nearly 14,000 applications have been made to the government for it, including many from distant parts of the world."—Mr. SIMON'S (Med. Office of Privy Council) Report quoted in Aug. 27th No. of *British Medical Journal*.

**MERCURIAL SUPPOSITORIES IN CONSTITUTIONAL SYPHILIS.**—Prof. Lebert (*Berlin Klin. Wochenschrift*) has had such success in the employment of these suppositories that he is desirous of calling attention to their value.

They are formed by mixing mercurial ointment with butter of cocoa and white wax, so as to obtain a convenient consistence.—*N. Y. Medical Record*.

**DIET OF PARTURIENT WOMEN.**—Dr. Hugh Miller believes that the fat cells of the milk for the first few weeks after delivery arise from the fatty disintegration of the uterus, the cells of which are absorbed by the blood, and through the circulation secreted by the mammary glands. Hence heat-forming food is unnecessary and may be injurious, while flesh-forming diet compensates for the waste during labor, and enables the patient to support the further changes going on.—*N. Y. Med. Gazette*.

**LABOR OMNIA VINCIT.**—The *Troy Press* chronicles the safe delivery of a matron aged 65, of her first born, after more than forty years of marriage. Have the exploits of Girault and Sims reached that part of the country?—*Ibid.*

THE friends of Dr. Buckminster Brown will be pleased to learn of his return from Europe after a very agreeable tour, and with entire restoration to health.

**CORRECTION.**—In the Journal for Oct. 13th, page 282, line 9, for "opium," read *tincture of opium*; to line 14 add, "when there has been excessive hemorrhage."

**TO CORRESPONDENTS.**—Communications accepted:—Delayed symptoms after injury to the Head.—On Gelsium Semperivirens.—Medical Notes upon the Aborigines of Alaska.—Advantages of Foreign Study to American Medical Graduates.

**BOOKS AND PAMPHLETS RECEIVED.**—The Physician's Prescription Record, containing nearly 400 Prescription Blanks, with Forms for record of the Condition of the Patient, and copy of Prescription. Philadelphia. S. W. Butler.—Pennsylvania Sanitarium. Report read at a Re-union of the Directors and their friends, in Philadelphia, on Thursday, May 10th, 1870, by the President. Media, Pa. Pp. 16.—Observations on the Physiological and Therapeutical Effects of Galvanization of the Sympathetic. By Drs. A. D. Rockwell and G. M. Beard, of New York. Pp. 16.—Thirty-fourth Annual Report of the Officers of the Vermont Asylum for the Insane, for year ending August, 1870. Pp. 14.—Report to the Surgeon-General of the United States Army, on certain Points connected with the Histology of Minute Blood-vessels. By Brevet Lieut. Col. J. J. Woodward, Assist. Surg. U.S. Army. Pp. 8 4to, with 11 Photomicrographs. From the Surgeon-General's Office, Washington.

**MARRIED.**—In Charlestown, Oct. 17th, Thomas Crozier, M.D., of Charlestown, to Miss Maria Louise Ogden, of Boston.

**Deaths in seventeen Cities and Towns of Massachusetts for the week ending Oct. 22, 1870.**

Cities and Towns.	No. of Deaths.	Prevalent Diseases.	
Boston . . . . .	101	Consumption . . . . .	39
Charlestown . . . . .	12	Dysentery & Diarrhœa . . .	13
Worcester . . . . .	10	Cholera infantum . . . . .	11
Lowell . . . . .	17	Pneumonia . . . . .	11
Milford . . . . .	5	Typhoid fever . . . . .	9
Chelsea . . . . .	11	Scarlet fever . . . . .	9
Cambridge . . . . .	12	Croup and Diphtheria . . .	6
Salem . . . . .	7	Whooping cough . . . . .	4
Lawrence . . . . .	9		
Springfield . . . . .	3		
Lynn . . . . .	10		
Pittsfield . . . . .	2		
Fitchburg . . . . .	4		
Newburyport . . . . .	4		
Somerville . . . . .	4		
Fall River . . . . .	12		
Haverhill . . . . .	2		
	226		

GEORGE DEERY, M.D.,  
Secretary of State Board of Health.

**DEATHS IN BOSTON** for the week ending Saturday, Oct. 22d, 101. Males, 52; females, 49. Accident, 1; apoplexy, 1; aneurism, 1; disease of bladder, 1; iron-chitis, 1; inflammation of the brain, 1; disease of the brain, 2; cancer, 2; cholera infantum, 4; cholera morbus, 1; consumption, 16; convulsions, 3; croup, 2; cyanosis, 1; delirium, 3; diarrhœa, 5; dropsy of the brain, 1; drowned, 1; diphtheria, 1; fistula, 1; scarlet fever, 4; typhoid fever, 3; disease of the heart, 5; hemorrhage, 1; infantile disease, 3; intemperance, 1; disease of the kidneys, 4; disease of the liver, 4; laryngitis, 1; inflammation of the lungs, 3; marasmus, 1; jaundice, 1; old age, 2; paralysis, 1; pleurisy, 1; premature birth, 1; puerperal disease, 2; scalded, 1; suicide, 1; teething, 4; tumor, 1; unknown, 6; whooping cough, 1.  
Under 5 years of age, 36—between 5 and 20 years, 5—between 20 and 40 years, 22—between 40 and 60 years, 23—above 60 years, 15. Born in the United States, 62—Ireland, 25—other places, 14.